

Abstract of the Disclosure

Soluble regulators such as growth factors and differentiation factors are used to treat disc disease and herniation. Such substances may be produced with recombinant genetic techniques, or obtained from animal sources. In the preferred embodiment the 5 materials are concentrated from a patient's blood then injected into the epidural space of the spinal canal and or the intervertebral disc using techniques well known to those skilled in the art. The blood is centrifuged to obtain platelets, and the platelets release the soluble regulators/growth factors by adding a mixture of calcium chloride and topical bovine thrombin. According to one example, 6ml of platelet rich plasma is combined 10 with 1ml of the calcium chloride – thrombin mixture and injected into the disc or spinal canal. Alternatively, the platelet rich plasma and calcium chloride – thrombin mixture may be injected separately. Soluble regulators obtained from other sources or different amounts of the platelet rich plasma than described above could also be used.